6. (Amended) The method of claim 1, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

B2

7. (Amended) The method of claim 1, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

10. (Amended) The method of claim 1, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' X_1X_2CGX_3X_4\ 3'$$

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

B3

SUB D15

11. (Amended) The method of claim 1, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' TCNTX_1X_2CGX_3X_4\ 3'$$

wherein X_1, X_2[,], X_3[,], and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

12. (Amended) The method of claim [1] 11, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

B4

27. (Amended) A method for increasing platelet counts in a subject having thrombocytopenia, comprising:

administering to a subject having (non-chemotherapeutic induced) thrombocytopenia [an] a CpG oligonucleotide[, having a sequence including at least the following formula:

$$5' X_1CGX_2\ 3']$$

wherein the CpG oligonucleotide includes at least 8 nucleotides [wherein C and G are unmethylated and wherein X_1 and X_2 are nucleotides], in an amount effective to increase platelet counts in the subject.

B4 cont.

28. (Amended) The method of claim 27 wherein the CpG oligonucleotide is administered in an amount effective to increase platelet counts in the subject by at least 10,000 platelets per microliter.

29. (Amended) The method of claim 27 wherein the CpG oligonucleotide is administered in an amount effective to increase platelet counts in the subject by at least 20,000 platelets per microliter.

30. (Amended) The method of claim 27 wherein the CpG oligonucleotide is administered to the subject in an amount effective to increase the platelet counts in the subject by 100 percent.

B5

35. (Amended) The method of claim 27, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

36. (Amended) The method of claim 27, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

B6

39. (Amended) The method of claim 27, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' X_1X_2CGX_3X_4\ 3'$$

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

40. (Amended) The method of claim 27, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' TCNTX$_1$X$_2$CGX$_3$X$_4$ 3'

wherein X$_1$, X$_2$[,], X$_3$[,], and X$_4$ are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

41. (Amended) The method of claim [27] 40, wherein X$_1$X$_2$ are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X$_3$X$_4$ are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

42. (Amended) A method of treating a subject at risk of developing thrombocytopenia comprising:

administering to a subject at risk of developing thrombocytopenia [an] a CpG oligonucleotide[, having a sequence including at least the following formula:

5' X$_1$CGX$_2$ 3']

wherein the CpG oligonucleotide includes at least 8 nucleotides [wherein C and G are unmethylated and wherein X$_1$ and X$_2$ are nucleotides], in an amount effective to prevent a decrease in platelet counts ordinarily expected under platelet-depleting conditions in the subject when the subject is exposed to platelet-depleting conditions.

44. (Amended) The method of claim 42, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

45. (Amended) The method of claim 42, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

48. (Amended) The method of claim 42, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

49. (Amended) The method of claim 42, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5'TCNT$X_1X_2CGX_3X_4$ 3'

wherein X_1, X_2[,], X_3[,], and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

50. (Amended) The method of claim [42] 49, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

51. (Amended) A method for treating anemia, comprising:

administering to a subject having anemia [an] a CpG oligonucleotide[, having a sequence including at least the following formula:

5' X_1CGX_2 3']

wherein the CpG oligonucleotide includes at least 8 nucleotides [wherein C and G are unmethylated and wherein X_1 and X_2 are nucleotides], in an amount effective to induce erythropoiesis in the subject.

52. (Amended) The method of claim 51 wherein the CpG oligonucleotide is administered in an amount effective to increase erythroblast counts in the subject by at least 10 percent.

53. (Amended) The method of claim 51 wherein the CpG oligonucleotide is administered in an amount effective to increase erythroblast counts in the subject by at least 20 percent.

B8 cont.

54. (Amended) The method of claim 51 wherein the CpG oligonucleotide is administered to the subject in an amount effective to increase erythroblast counts in the subject by 100 percent.

57. (Amended) The method of claim 51, wherein the CpG oligonucleotide is 8 to 100 nucleotides in length.

B9

58. (Amended) The method of claim 51, wherein the CpG oligonucleotide includes a phosphate backbone modification which is a phosphorothioate or phosphorodithioate modification.

61. (Amended) The method of claim 51, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

B10 SUB D10

62. (Amended) The method of claim 51, wherein the CpG oligonucleotide has a sequence including at least the following formula:

5' $TCNTX_1X_2CGX_3X_4$ 3'

wherein X_1, X_2[,], X_3[,], and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

63. (Amended) The method of claim [51] 62, wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT [or] and GpT.

Please add the following new claims.

B11

66. A method for inducing an antigen-specific immune response, comprising:

administering to a nonhuman vertebrate a CpG oligonucleotide, wherein the CpG oligonucleotide includes at least 8 nucleotides, and

exposing the nonhuman vertebrate to an antigen at least 3 days after the CpG oligonucleotide is administered to the nonhuman vertebrate to produce an antigen-specific immune response.

67. The method of claim 66, wherein the CpG oligonucleotide has a sequence including at least the following formula:

$$5' X_1X_2CGX_3X_4\ 3'$$

wherein X_1X_2 are nucleotides selected from the group consisting of: GpT, GpG, GpA and ApA; and X_3X_4 are nucleotides selected from the group consisting of: TpT, CpT and GpT.

B11 cont

68. The method of claim 66, wherein the CpG oligonucleotide has a sequence including at least the following formula:

SUB D19

$$5' TCNTX_1X_2CGX_3X_4\ 3'$$

wherein X_1, X_2, X_3, and X_4 are nucleotides, N is a nucleic acid sequence composed of from about 0-25 nucleotides.

69. The method of claim 66, wherein the nonhuman vertebrate is selected from the group consisting of a dog, cat, horse, cow, pig, sheep, goat, chicken, monkey, and fish.

70. The method of claim 66, wherein the antigen is administered at least 15 days after the oligonucleotide is administered to the nonhuman vertebrate.

71. The method of claim 66, wherein the antigen is administered at least 30 days after the oligonucleotide is administered to the nonhuman vertebrate.

72. The method of claim 66, wherein the antigen is derived from a microorganism selected from the group consisting of herpesviridae, retroviridae, orthomyxoviridae, *Toxoplasma*, *Haemophilus*, *Campylobacter*, *Clostridium*, *E. coli*, and *Staphylococcus*.

73. A method for increasing platelet counts in a nonhuman vertebrate having thrombocytopenia, comprising:

administering to a nonhuman vertebrate having thrombocytopenia a CpG oligonucleotide, wherein the CpG oligonucleotide includes at least 8 nucleotides, in an amount effective to increase platelet counts in the nonhuman vertebrate.

B11 cont

74. The method of claim 73, wherein the nonhuman vertebrate is a dog.

75. A method for treating and preventing anemia in a nonhuman vertebrate, comprising:

administering to a nonhuman vertebrate having or at risk of having anemia,

a CpG oligonucleotide, wherein the CpG oligonucleotide includes at least 8 nucleotides, in an amount effective to induce erythropoiesis in the nonhuman vertebrate.

76. The method of claim 75, wherein the nonhuman vertebrate is a horse.

77. The method of claim 76, wherein the horse is administered the CpG oligonucleotide prior to or after a race.

REMARKS

Claims 1-65 were pending. Claims 1-65 were rejected. Claims 1, 6, 7, 10-12, 27-30, 35, 36, 39-42, 44, 45, 48-54, 57, 58, and 61-63 are amended. New claims 66-77 are presented. The specification is amended on page 39 to supply missing SEQ ID NOs and to correct the correspondence between SEQ ID NOs in the specification and the sequence listing. No new sequence listing is necessary. No new matter has been introduced.